

Schematic diagrams of replication competent EIA viruses and Constructs

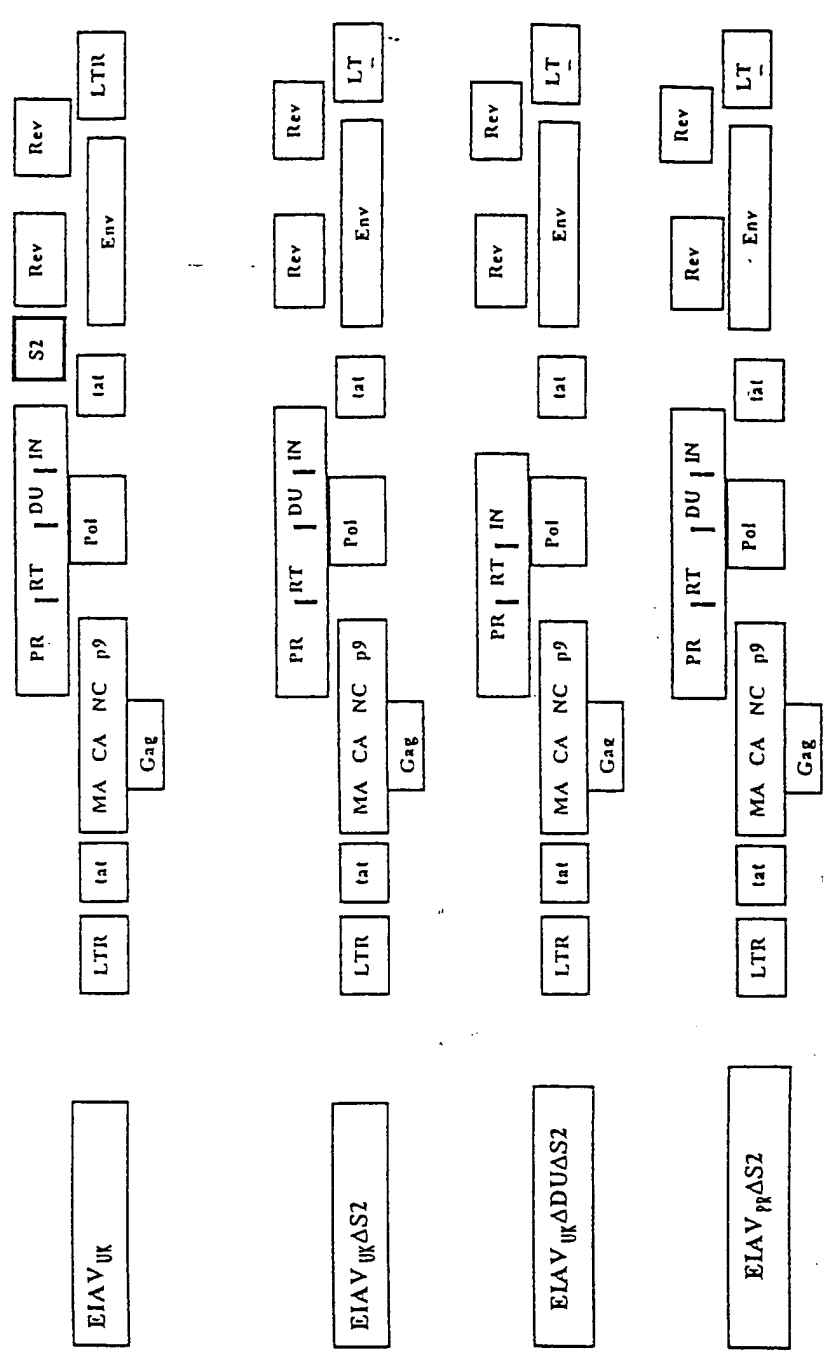


FIG. 1

Schematic representation of EIA virus S2 gene and mutant clones derived from EIAV_{UK}. The EIA proviral DNA is shown at the top; the complete deduced amino acid sequence of the putative S2 protein is shown in single letter amino acid code at the bottom. Stop codons (indicated by arrows) were introduced into various positions in the EIA virus S2 gene to generate the specific mutant virus strains.

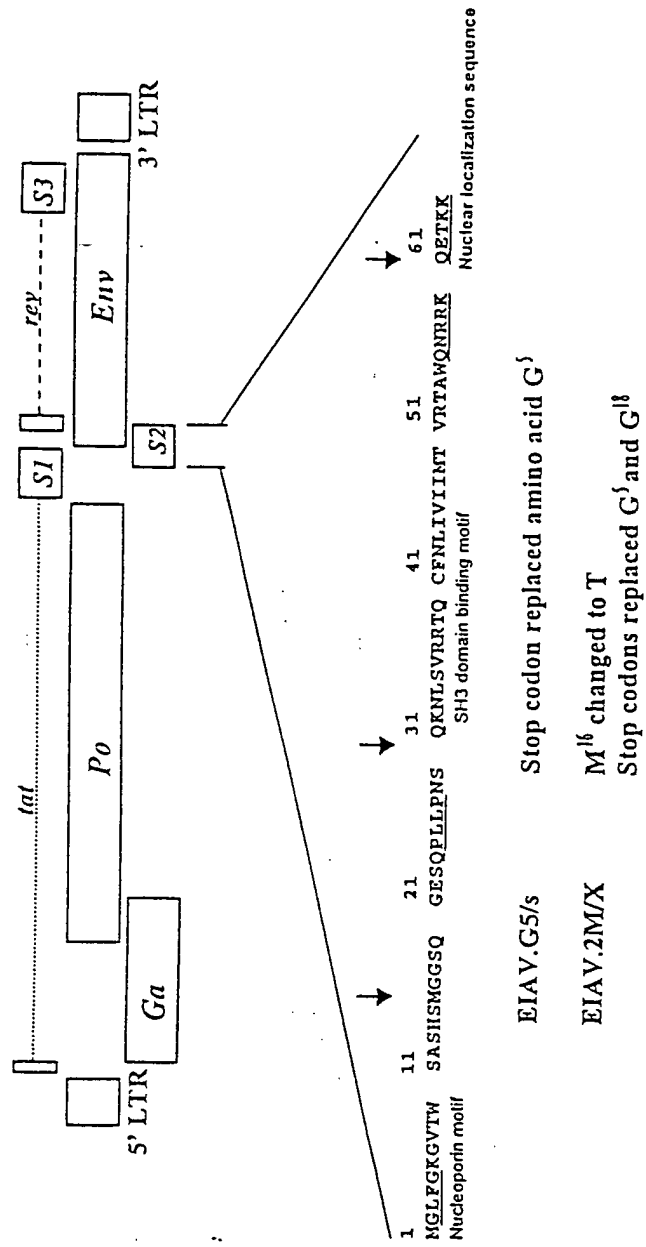
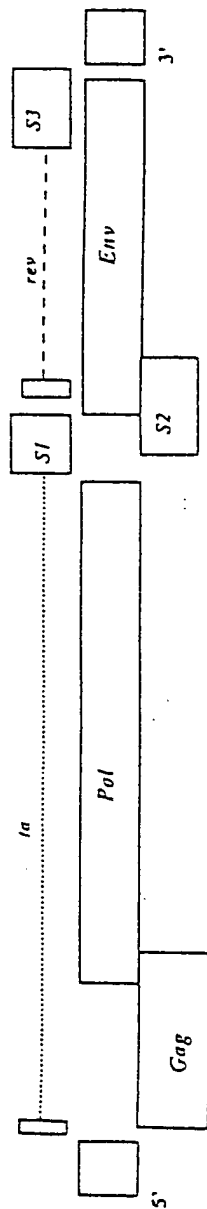


FIG. 2a EIAV.ΔS2 Deletion of initial 5 nucleotides of S2

Schematic representation of the Wild-type EIAV S2 gene compared with the Δ S2 gene of EIAV.2M/X (EIAV_{10K} Δ S2)



Wild
type

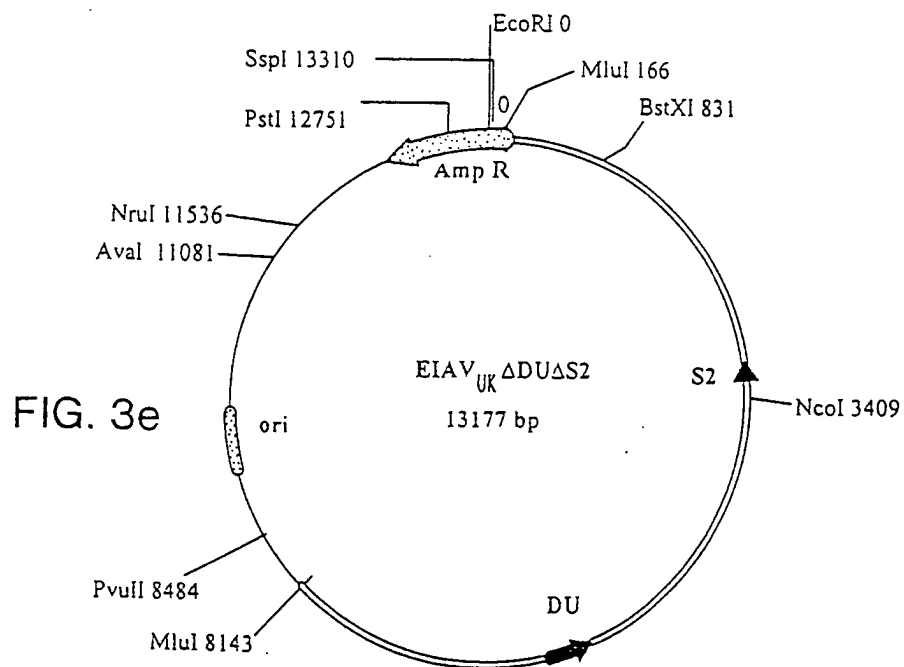
ATG GGA TTA TTT GGT AAA GGG GTA ACA TGG TCA GCA TCG CAT TCT ATG GGG GGA TCC CAG GGG GAA TCT CAA
M G L F G K G V T W S A S H S M G G S Q G E S Q
CCC CTA TTA CCC AAC AGT CAG AAA ANT CTA AGT GTG AGG AGA ACA CAA TGT TTC AAC CTT ATT GTT ATA ATA
P L L P N S Q K N L S V R R T Q C F N L I V I I
ATG ACA GTA AGA ACA GCA TGG CAG ANT CGA AGG AAG CAA GAG ACC AAG AAA
N T V R T A W Q N R R K Q E T K K

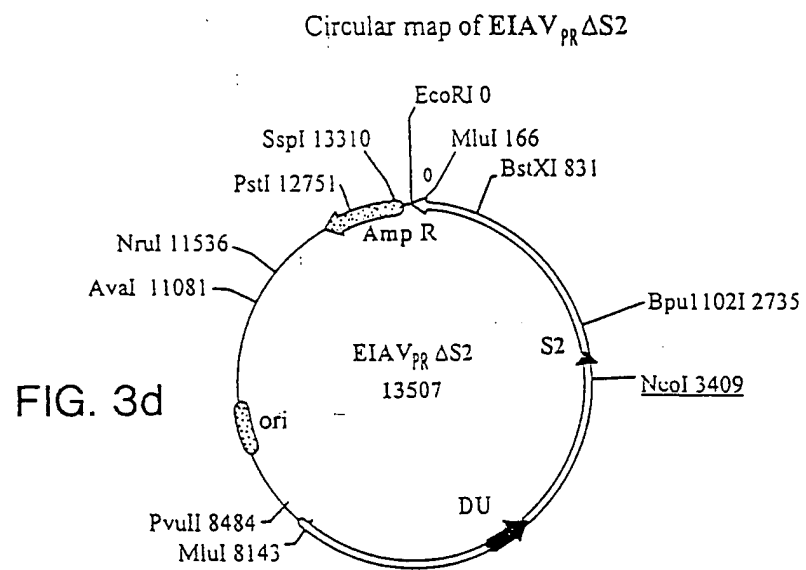
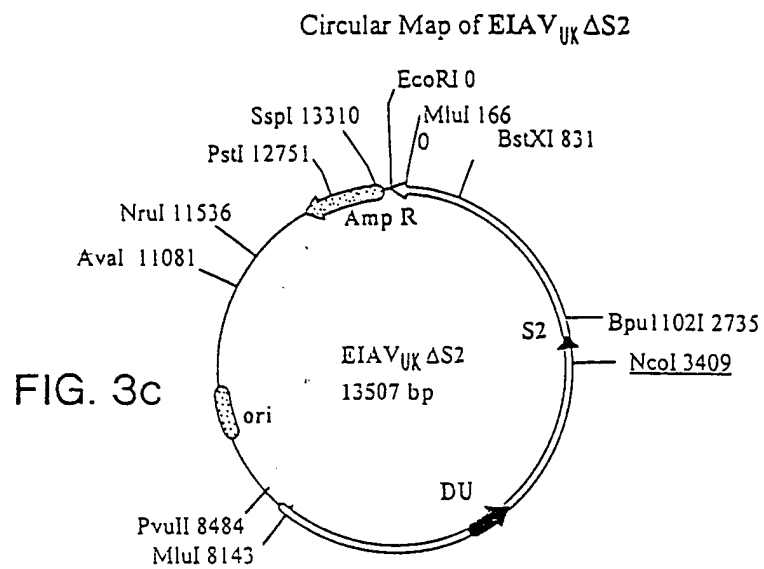
Δ S2

ATG GGA GTA TAC TAG TGT AAA GGG GTA ACA TGG TCA GCA TCG CAT TCT ACQ GGG TGA TCC CAG GGG GAA TCT
M G V Y C K G V T W S A S H S T G S Q G E S
CAA CCC CTA TTA CCC AAC AGT CAG AAA ANT CTA AGT GTG AGG AGA ACA CAA TGT TTC AAC CTT ATT GNT ATA
Q P L L P N S Q K N L S V R R T Q C F N L I V I
ATA ATG ACA GTA AGA ACA GCA TGG CAG ANT CGA AGG AAG CAA GAG ACC AAG AAA
I M T V R T A W Q N R R K Q E T K K

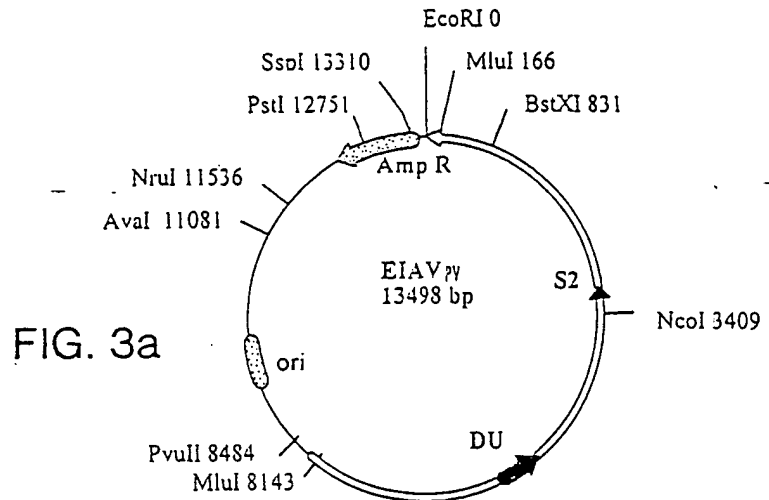
FIG. 2b

Circular Map of EIAV_{UK} ΔDUΔS2

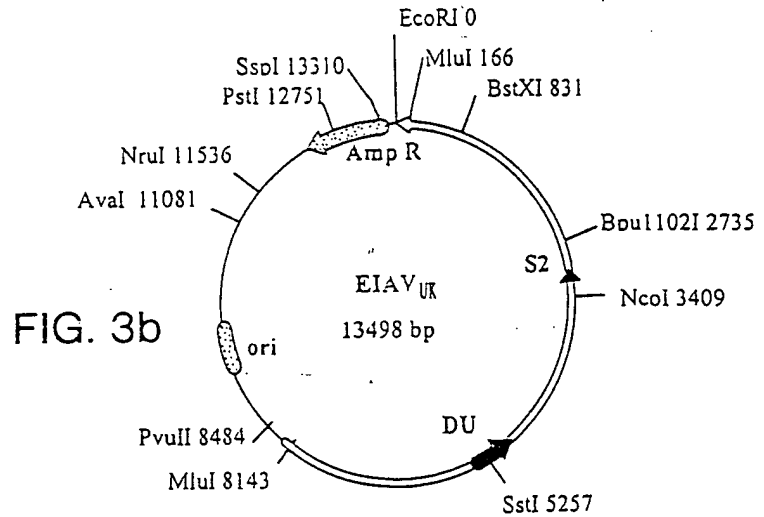




Circular Map of Biological Proviral Clone EIAV_{PR}



Circular Map of Molecular Infectious Clone EIAV_{UK}



Replication of EIA Virus Mutant Clones *in vitro*

Replication in ED Cell Line

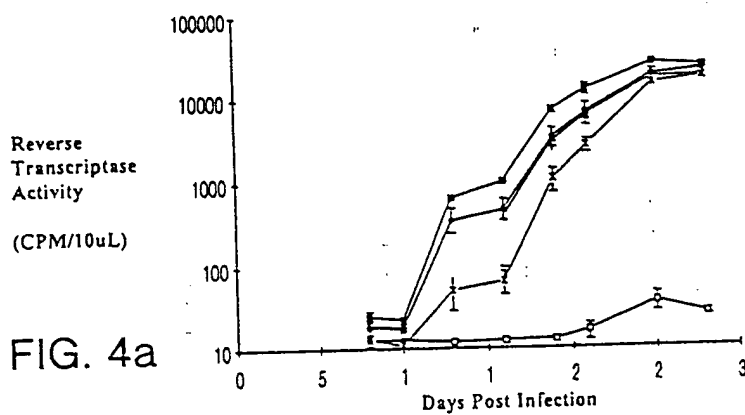


FIG. 4a

Replication in MDM Cells

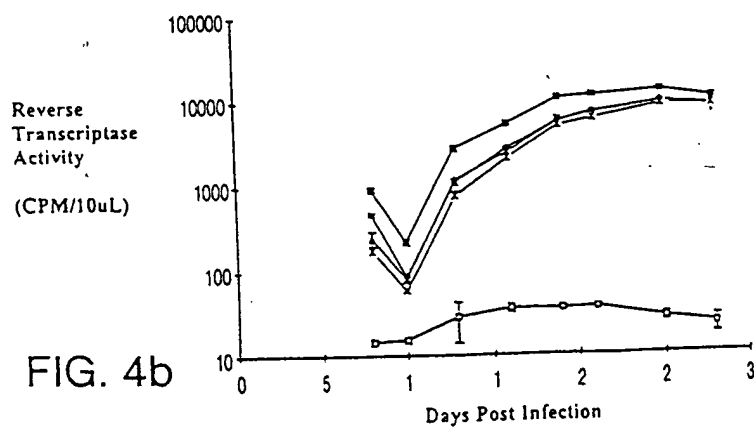


FIG. 4b



Schematic Representation of the *DU* gene and construction of ELAVADU

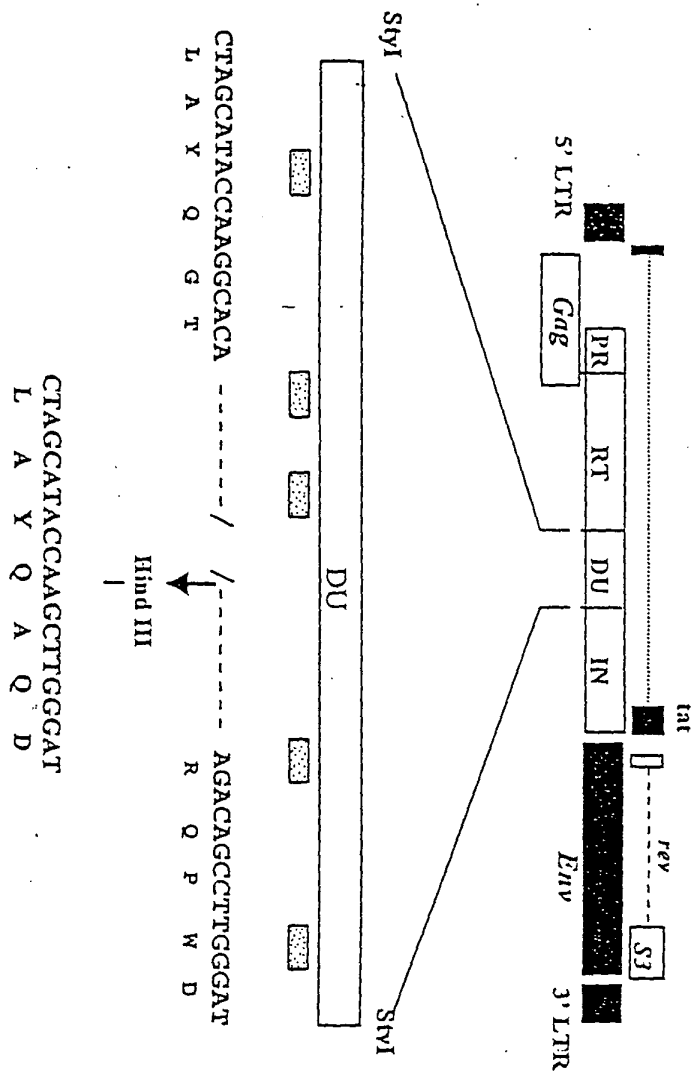


FIG. 5

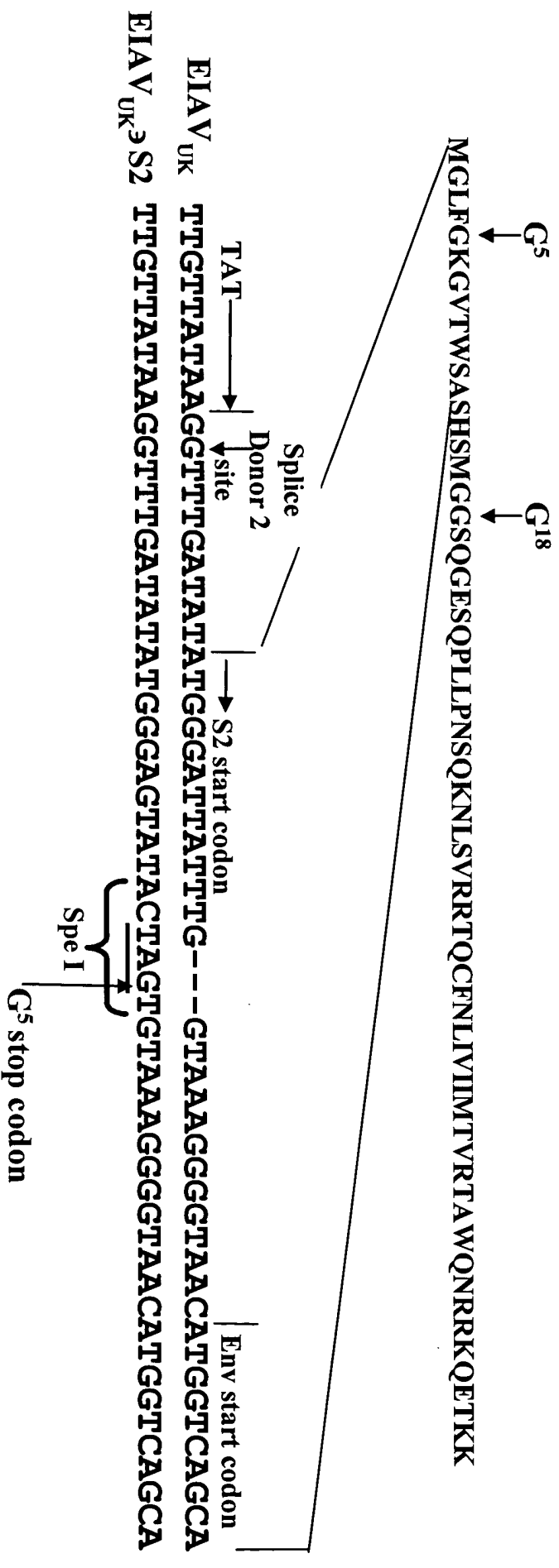


FIGURE 6

3 S2: TTGTTATAAGGTTTGCATATATGGGAGTATAC TACTGTAAAGGGTAACATGGTCAGCA
D14: TTGTTATAAGGTTT-----TACTAGTGTAAAGGGGTAAACATGGTCAGCA
D25: TTGTTATAAGGTTT-----TACTAGT-----ACATGGTCAGCA

FIGURE 7

TRANSFECTION OF ED CELLS

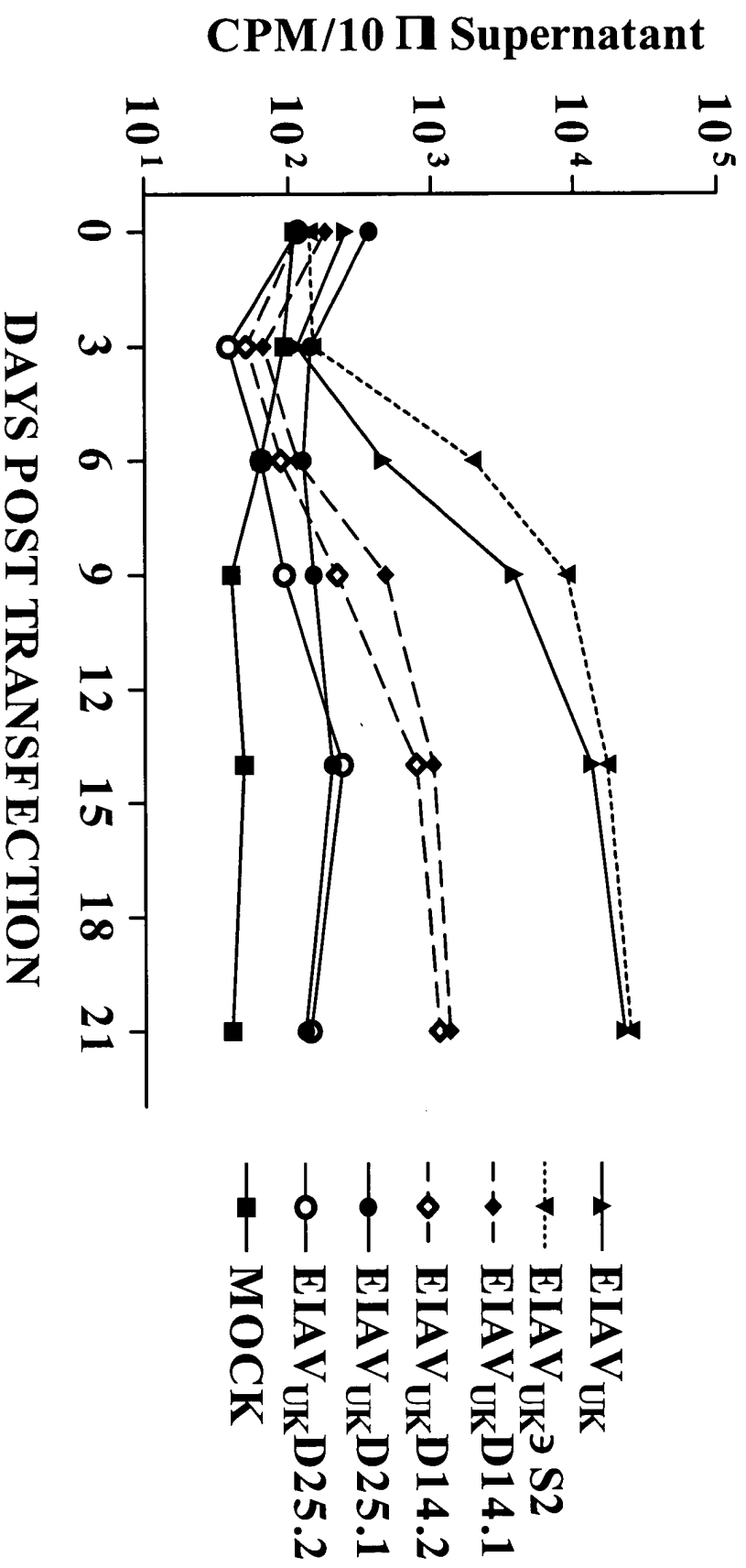


FIGURE 8

3 S2: TTGTTATAAGGTTTGCATATATGGGAGTATACTAGTGTAAAGGGTAACATGGTCAGCA
D6: TTGTTATAAGGTTTGA-----GGAGTATACTAGTGTAAAGGGTAACATGGTCAGCA
D9: TTGTTATAAGGTTTGA-----GTATACTAGTGTAAAGGGTAACATGGTCAGCA

FIGURE 9

TRANSFECTION OF ED CELLS

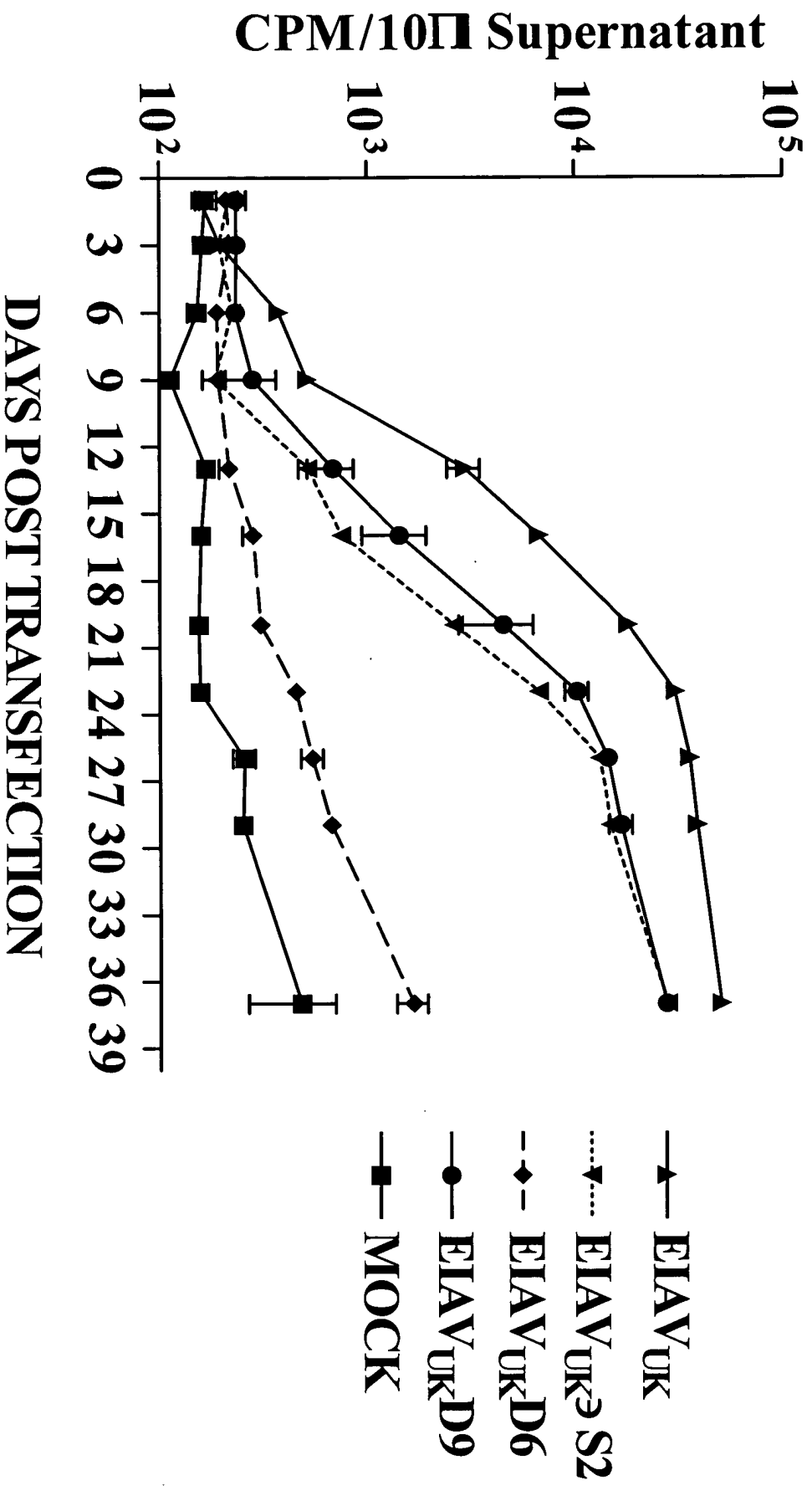


FIGURE 10

INFECTION OF MACROPHAGE

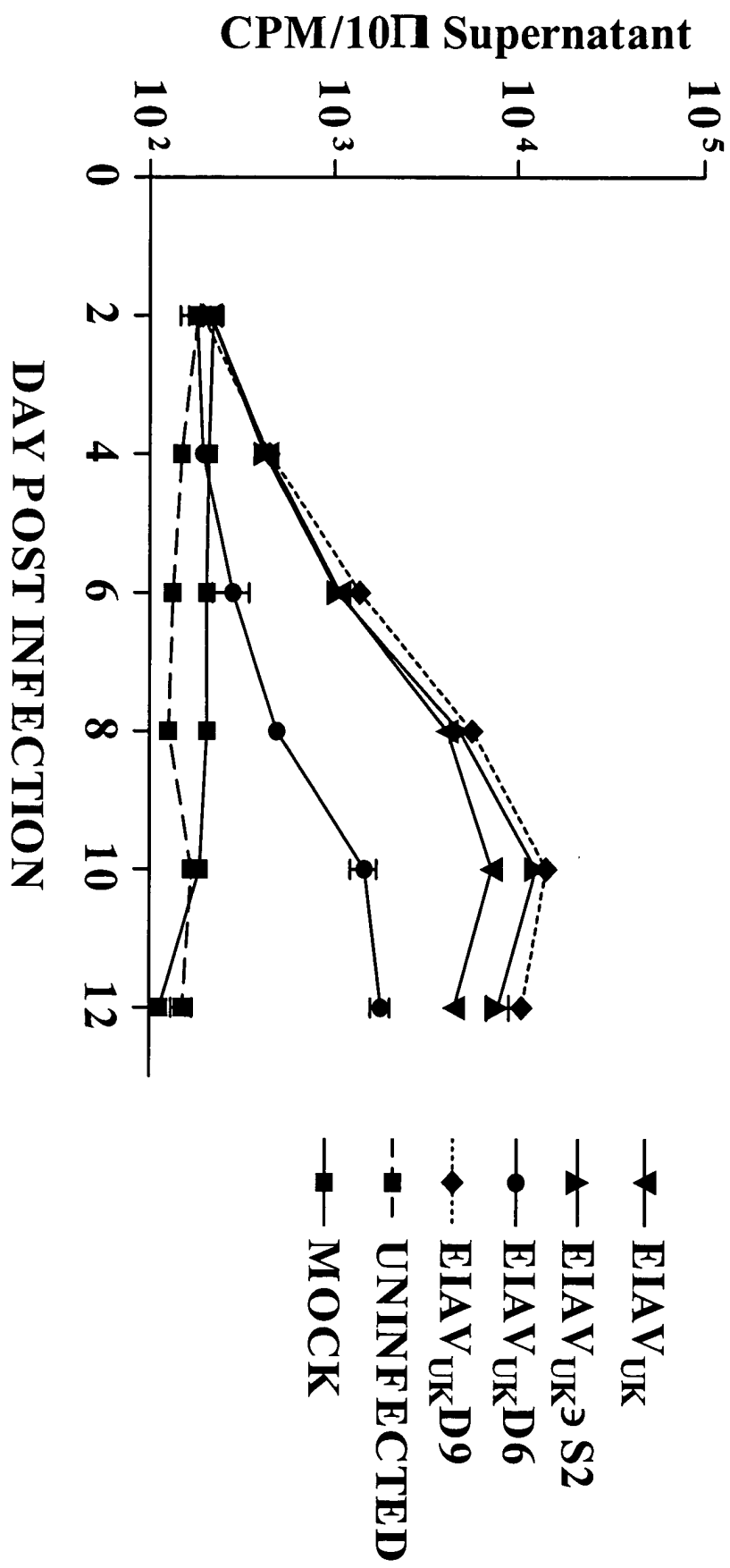


FIGURE 11